5 MAR 1971

PROJECT HEADQUARTER'S

Washington, D.C.

LIFE SUPPORT CONFERENCE

22 - 26 February 1971

25X1

[redacted]

A G E N D A

"Rough Sea" LIFE SUPPORT Equipment Test
Open Date (Dependent on weather)

WORKING GROUP DISCUSSIONS

Daily 0900 - 1200 1400 - 1600 hrs

Pressure Suit Data Bank Proposal
Suit
Helmet
Vent Hose
Automatic Inflation Device
Ejection Seat
Seat Kit
Parachute
Life Rafts
Flash Blindness
Test Equipment
Preflight & Postflight Inspection
Ground Training
Future Modifications
ARO
"Rough Sea" Test

Minutes of

LIFE SUPPORT CONFERENCE

HQ's Washington,D.C.
22-26 February 1971

1. "Rough Sea" Equipment Test

This test had to be postponed due to lack of wind throughout the entire week although the boat and personnel were on standby ready to proceed to the test area in a matter of one to two hours.

2. Pressure Suit Data Bank

The first 300 cards from Detachment G have already been forwarded to the depot for filing in the data bank. Beale AFB and David Monthan AFB are preparing their cards at this time.

25X1 [redacted] will notify Kirtland AFB and any other units currently using full-pressure suits to forward their data to him.

3. S-1010 PPA & 901J (General)

For the most part things are in good shape on the S-1010 with the exception of the booties. New sizing techniques were adopted as a result of this meeting. Heat still remains an irritating part of the PPA even with the white outercover.

With the article S.B. to improve cooling, it is hoped that the major crisis has passed. [redacted] presented a 25X1 standard cooling vest that will be used with low flight 25X1 during the summer months. [redacted] also feels the PPA gloves are perhaps the weakest point in the assembly since the booty change.

Sizing problems seem to be resolving themselves with the adjustment panels as an addition to the custom suit. These panels are almost identical to those used in the standard sized 901J suit. Additionally, easements have been enlarged in the S-1010.

4. Helmets

Detachment G, D/M, and Beale AFB are to submit to the contractor suggestions for changing the helmets to the "best of all possible worlds." The contractor will evaluate these proposals and present the feasible changes, two flyable helmets and costs. Beale AFB is looking at a lumbar pad approach to install inside of the J helmet. Impact tests are being run at the David Clark Company now in conjunction with the five-year overhaul of the J system. 25X1 [redacted] questioned [redacted] on the glare 25X1 problem identified at Beale. Apparently this is a night and day problem. Discussions on helmets in general revealed the S-1010 to be a larger but lighter helmet especially in the inside area. Visability seems much better with

the J, however. The glass visor seems to be the big com-
25X1 promise in weight. [redacted] has authorized buffing wheels be installed at David Clark to help in cleaning the visors and will probably save considerable money in salvaging visors. It is necessary to have this tool because you must buff the entire area at one time. The helmet microphone was discussed at length identifying the standard mike as the one of choice-cost $0.59/a piece. Det G has been using these mikes for a year now and have never
25X1 experienced a failure. [redacted] allowed that the Gemini mike did have a better noise cancelling characteristic, however, the integrity of the entire system left much to be desired. The standard mike is now in the Det G FAK.

Flash blindness protection was discussed, it still being a very strong SAC requirement. [redacted] brought a 25X1 98% green absorptive, coated visor for protection in the event of nuclear blast. This visor will presently fit the standard flight helmet. The problem will be in night flight in that the pilot will most likely not be able to see the instruments. If thunderstorm lights are available in the cockpit, vital instruments may be visible. Needs testing. Cost of this lens approximately $25.00/copy. David Clark thinks if tests are successful, that material can be molded into visors for FPS in event of EWO missions.

One additional helmet mod in testing is automatic visor lowering in the event of ejection low flight. Test results are not available at present.

5. Automatic Preserver Inflator Kit

(See attached SAC Message and copy.)

6. Ejection Seat

Of primary concern in this area is the present packing of the drogue parachute. At both Det G and D/M, examples of poor packing procedures have been identified. ADP needs watching on this one at Det G especially.

7. Seat Kits

Interest here in the automatically deployed survival
25X1 kit. [redacted] has seen the kit and has some experience in
25X1 the area. [redacted] presently furnishing this mod in kits for A-7D, B-57, F106. Maybe later in F-15 and retro-fit for F-102. Working group to look into this before next meeting.

25X1 [redacted] updated the group on the state of the art in survival radios as the company sees it and he will keep the Life Support group up to speed in this field.

9. Parachutes

Major interest here in ECP from ADP concerning the 6-line
25X1 release. [redacted] vigorously wants to continue

the testing. LAC feels the release weakens too much the 35' canopy from "static pull tests." [redacted] at LAC will investigate further and reconsider at least proceeding onto the Whirl tower at [redacted]

25X1

25X1

9. Ground Training

(See attached copy of this Report)

10. ARO

Meeting to discuss this will be held with [redacted] at Norton, should also be advised to get support for Beale program hardware inadequacies.

25X1

25X1

14C
9mAQ
9wSLO
95LSG

CZCEIA591
PTTEZYUW RUWJSPA0022 0331830-EEEE- 1970 JAN 2 19 41 RUWJIEA.
ZNY EEEEE
R 021640Z FEB 71 25X1
FM [redacted] MES/NORTON AFB CA
TO RUWJIEA/9SRW/9MAQ/BEALE AFB CA
INFO RHCOAAA/SAC/DNMR.
RUWBKNA/15AF/DNMR/MARCH AFB CA
RUWJBDA/SR-71/F-12 TEST FORCE/FTTA/EDWARDS AFB CA
RUADAHA/376 STRATWG/OL RKMA/KADENA AB OK
RUWJIEA/9SRW/9WSLO/BEALE AFB CA
RUWJJIEA/USAF HOSP/SGT/BEALE AFB CA
UNCLAS E F T O FOUO MES
THIS IS A SENIOR CROWN MESSAGE. SUBJ: MIP MEA 710011 (EUMR 9SRW-E71-001) AUTOMATIC VEST INFLATOR.
1. THE PROBLEM CITED IN SUBJECT EUMR HAS BEEN RESOLVED. SERVICE BULLETIN R-1322 WILLL BE ISSUED TO ACCOMPLISH AN IMPROVEMENT MODIFICATION OF SUBJECT PART. IMPROVEMENT WILL CONSIST OF:
A. AN INSULATING COVER OVER THE THREE EXTERNAL TEST PINS.
B. A POTTING-TYPE INSULATION OVER THE THREE INTERNAL WIRING CONNECTORS.
2. PART NUMBER WILL BE REIDENTIFIED TO 50265-4.
3. A TURNAROUND PROGRAM WILL BE RREQUIRED TO ACCOMPLISH THE

ATTACHMENT
REFERENCE
Form 163a 8-66

MODIFICATION. DURING TURNAROUND SURVEILLANCE TESTING OF BATTERY AND SQUIB WILL BE CONDUCTED, ANTICIPATING AN EXTENSION OF SERVICE LIFE TO 24 MONTHS IN LIEU OF PRESENT 12 MONTHS.
4. THIS CONSTITUTES CLOSING ACTION ON SUBJECT EUMR, HOWEVER, THE MIP WILL REMAIN OPEN PENDING RECEIPT OF SERVICE BULLETIN R-1322.
BT
#0022

NNNN

2 March 1971

MEMORANDUM FOR: AF/IGJ
Headquarters, USAF

ATTENTION : [redacted] 25X1

SUBJECT : Proposed Aquatic Survival Training Program

1. Attachment I is the proposed Parasail Program as we see it.

2. Attachment II is the Mean Temperature Chart both for water and air temperatures.

3. We suggest late April 1971 as the earliest possible date to begin training.

[redacted] 25X1
AMS/OSA

Attachments
As stated above

ATTACHMENT I

OUTLINE FOR AQUATIC FULL PRESSURE SUIT INDOCTRINATION

1. The Aquatic Survival Training specially designed for full-pressure suit indoctrination is conducted with the use of the parasail which presents a safe, simply-operated system for personnel parachute familiarization training. The parasail is an ascending parachute which provides sufficient lift while under tow to hoist a man with full-flight clothing, life preserver, and survival kit to heights from which he can make a safe and completely realistic parachute descent. As used in this program, it provides actual experience in overwater parachute descent and water entry. Ideally, this is accomplished in order that the student deploys his survival kit/life raft and preserver while airborne and transitions from the parachute descent/water entry into the one-man raft training exercise.

2. Procedures:

The following is a description of the Aquatic Training Program:

A. Preliminary Water Landing

Preliminary instruction and supervised practice are conducted under closely supervised conditions. During this phase, each student is required to perform the following:

1. Preparation for Water Entry

   a. Inflation of life preserver

   b. Release of survival kit and raft inflation

2. Water Entry

   a. Proper position

3. Canopy Release

a. Activate riser-releases when feet enter the water.

4. Antidrag Measures

a. Execute drag position and riser release with standard flight equipment.

b. Execute drag position and riser release with full-pressure suit.

5. Boarding Techniques of Various Available Raft.

B. Parachute Descent and Water Entry

Each student is towed to an altitude of approximately 800 feet and released for free descent and water entry. Each student is required to perform the following:

1. One flight in standard flight equipment and life preserver for familiarization.

2. One flight in full-pressure suit without survival kit/raft.

3. One flight in full-pressure suit with survival kit/raft.

3. Parasail Launching Operation

A platform 32 feet long and 24 feet wide is mounted on two houseboat pontoons and is towed 300 feet behind a boat to launch the parasailor. As the launching platform is towed directly into the wind by the tow boat, the parasailor will lift off of the launching platform's deck when the combined wind and platform speed is approximately 18 knots. At this point the platform is released from the tow boat. As the parasailor rises, a polypropylene tow line paid out by the boat's winch will permit the parasailor to ascend to the altitude desired for free descent.

When the altitude is achieved, the parasailor will release the tow line from his harness with a quick disconnect fitting upon receiving proper signal from the boat. The parasailor will then descend slowly to the water while preparing for water entry.

 II

Average Monthly Water and Air Temperature for [redacted]

25X1

	Water (Degrees) F	Air (Degrees) F
January	54	43
February	52	48
March	55	55
April	60	65
May	69	74
June	76	83
July	83	90
August	85	87
September	80	80
October	74	67
November	65	53
December	59	45